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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,664	01/30/2001	Claudio De Girolamo	Q62791	8160

7590 04/21/2005

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER	
PHAN, HANH	
ART UNIT	**PAPER NUMBER**
2633	

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/771,664	DE GIROLAMO ET AL.	
	Examiner	Art Unit	
	Hanh Phan	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 11/12/2004.

2. The indicated allowability of claims 1-4 is withdrawn in view of the newly discovered reference(s) to Ikeda et al (US Patent No. 6,643,041), Ballintine et al (US Patent No. 6,246,667) and Takeguchi (US Patent No. 6,735,171). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al (US Patent No. 6,643,041) in view of Ballintine et al (US Patent No. 6,246,667) and further in view of Takeguchi (US Patent No. 6,735,171).

Regarding claims 1 and 5, referring to Figures 1 and 5-11, Ikeda discloses a method for protecting traffic in a WDM-based ring-topology optical transport network, the network comprising network elements (i.e., transmission equipments 9, Fig. 1) joined by spans, optical paths being defined between the network elements, the method comprising the steps of:

defining a network architecture (col. 8, lines 55-63);

defining configuration data of the network elements (co. 9, lines 27-67 and col. 10, lines 1-67);

defining criteria triggering the protection mechanism (col. 10, lines 36-59);

defining a mechanism state machine and a protocol for exchanging information between the network elements, the protocol comprising a set of messages and both the syntax and semantics thereof (col. 10, lines 4-59); and

defining a method for traffic re-routing (col. 15, lines 1-67 and col. 16, lines 1-67); wherein the step of defining a network comprises the step of defining a network wherein the whole capacity is evenly split between working capacity and protection capacity; and the step of defining configuration data of the network elements comprises the steps of providing each network element with a ring network map, a traffic map with path characteristics and bit rate of each path; the step of defining criteria triggering the protection mechanism comprises the step of considering as triggering criteria the defects at OMS section level or the network element failures; and wherein the terms and concepts which are specific for SDH transmissions are replaced by those corresponding to OTN networks.

Ikeda differs from claims 1 and 5 in that he fails to teach the step of defining as state machine and protocol fundamentally those described in ITU-T G.841 and the step defining a set of operator commands for network maintenance and wherein the step of defining as operator commands those described in ITU-T G.841. However, Ballintine in US Patent No. 6,246,667 teaches the step of defining as state machine and protocol fundamentally those described in ITU-T G.841 (Figs. 1, 2 and 5-15, col. 7, lines 14-20)

and Takeguchi in US Patent No. 6,735,171 teaches the step defining a set of operator commands for network maintenance (Figs. 1 and 10, col. 2, lines 14-20 and col. 9, lines 34-43). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the step of defining as state machine and protocol fundamentally those described in ITU-T G.841 and the step defining a set of operator commands for network maintenance as taught by Ballintine and Takeguchi in the system of Ikeda. One of ordinary skill in the art would have been motivated to do this since Ballintine suggests in column 7, lines 14-20 and Takeguchi suggests in column 2, lines 14-20 and col. 9, lines 34-43 that using such the step of defining as state machine and protocol fundamentally those described in ITU-T G.841 and the step defining a set of operator commands for network maintenance have advantage of allowing providing a failure restoration method and enhancing the reliability of communication.

Regarding claim 2, the combination of Ikeda, Ballintine and Takeguchi teaches carried out by the network elements which are adjacent to a failure/command, of performing a Bridge & Switch so that the traffic is restored at Optical Multiplex Section level and in case of a span failure/command in the ring network, traffic normally travelling on the working channel will be transported on the corresponding spare channel of the same span and in case of a ring failure/command in the ring network, traffic normally travelling on the working channel will be transported on the corresponding spare channel through a loopback (col. 12 of Ikeda, lines 37-65 and see Figs. 1, 2 and 5-15 of Ballintine).

Regarding claim 3, the combination of Ikeda, Ballintine and Takeguchi teaches in case of a span failure/command in the ring network, the network elements which are adjacent to a failure/command carry out, optical path-by-optical path, a Bridge & Switch so that traffic normally travelling on the working channel will be transported on the corresponding spare channel of the same span and in case of a ring failure/command in the ring network, the path insert/drop network elements carry out a Bridge & Switch by re-routing on the semi-ring network which does not comprises the failured span (col. 10 of Ikeda, lines 44-67 and col. 12, lines 37-65 and see Figs. 1, 2 and 5-15 of Ballintine and col. 3, lines 49-67 and col. 4, lines 1-4).

Regarding claim 4, the combination of Ikeda, Ballintine and Takeguchi teaches step of providing each network element with a traffic map comprises the step of providing the network elements with information comprising identifiers of network elements which are in communication with each other, the channel which is used by each path and the path direction (col. 6 of Ballintine, lines 8-62).

Regarding claim 6, the combination of Ikeda, Ballintine and Takeguchi teaches a programmed computer program executing computer program code means adapted to perform all the steps of claim 1 when the program is run on a computer (see Figs. 1 and 10 of Takeguchi, col. 2, lines 14-20 and col. 9, lines 34-43).

Regarding claim 7, the combination of Ikeda, Ballintine and Takeguchi teaches a computer-readable medium having a program recorded thereon, the computer-readable medium comprising computer program code means adapted to perform all the steps of

claim 1 when the program is run on a computer (see Figs. 1 and 10 of Takeguchi, col. 2, lines 14-20 and col. 9, lines 34-43).

Response to Arguments

5. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

HANH PHAN
PRIMARY EXAMINER